



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0838; Product Identifier 2017-NE-33-AD; Amendment 39-19275; AD 2018-10-01]

RIN 2120-AA64

Airworthiness Directives; Safran Helicopter Engines, S.A., Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Safran Helicopter Engines, S.A., Arriel 2E turboshaft engines. This AD was prompted by reports of ruptured front support pins on the accessory gearbox front support. This AD requires replacement of the accessory gearbox front support. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Safran Helicopter Engines, S.A., 40220 Tarnos, France; phone: (33) 05 59 74 40 00; fax: (33) 05 59 74 45 15. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0838.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0838; or in person at the Docket

Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is Docket Operations, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Robert Green, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Safran Helicopter Engines, S.A., Arriel 2E turboshaft engines. The NPRM published in the Federal Register on November 3, 2017 (82 FR 51170). The NPRM was prompted by reports of ruptured front support pins on the accessory gearbox front support. The NPRM proposed to require replacement of the accessory gearbox front support. We are issuing this AD to address the unsafe condition on these products.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2016-0235, dated November 24, 2016 (referred to after this as the MCAI), to address the unsafe condition on these products. The MCAI states:

Some cases were reported of ruptured front support pins on ARRIEL 1E2 engines. That condition, if not detected and corrected, could lead to the loss of the load path integrity of the engine front support. Consequently, Turboméca issued Mandatory Service Bulletin (MSB) 292 72 0842 to provide instructions for the inspection of the pins and front support replacement, and EASA

issued AD 2015-0064 (later revised) to require those actions. Since EASA AD 2015-0064R1 was issued, SAFRAN Helicopter Engines developed a new pin design, in order to increase the mechanical strength of the pin, through modification TU380, for ARRIEL 1E2 engines. Although no cases of front support pin rupture have been reported on ARRIEL 2E engines, since the ARRIEL 1E2 and 2E type designs have the same front support, SAFRAN Helicopter Engines decided to also apply this new pin design on ARRIEL 2E engines through modification TU197. To address this potential unsafe condition, SAFRAN Helicopter Engines decided, as precautionary measure, to replace the front support on ARRIEL 2E engines, and published MSB 292 72 2197 to provide instructions for in-service front support replacement. For the reasons described above, this [EASA] AD requires modification of the affected engines by replacement of each pre-mod TU197 front support.

You may obtain further information by examining the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0838.

Comments

We gave the public the opportunity to participate in developing this final rule. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed.

Related Service Information

We reviewed Safran Helicopter Engines, S.A., Mandatory Service Bulletin (MSB) No. 292 72 2197, Version A, dated September 15, 2016. The MSB describes procedures for replacement of the accessory gearbox front support.

Costs of Compliance

We estimate that this AD affects 28 engines installed on aircraft of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|---------------------------|--|------------|------------------|------------------------|
| Front support replacement | 2 work-hours X \$85 per hour = \$170 | \$19,731 | \$19,901 | \$557,228 |

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on

the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2018-10-01 **Safran Helicopter Engines, S.A.:** Amendment 39-19275; Docket No. FAA-2017-0838; Product Identifier 2017-NE-33-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Safran Helicopter Engines, S.A., Arriel 2E turboshaft engines with front support, part number 0 292 11 715 0, installed (pre-mod TU 197 configuration).

(d) Subject

Joint Aircraft System Component (JASC) Code 8300, Accessory Gearboxes.

(e) Unsafe Condition

This AD was prompted by reports of ruptured front support pins on the accessory gearbox front support. We are issuing this AD to prevent failure of a front support, loss of engine thrust control and reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Before the accessory gearbox and transmission shaft module (Module 01) accumulates 1,600 engine operating hours since new, or within 80 engine operating hours after the effective date of this AD, whichever occurs later, replace the front support with a part eligible for installation.

(h) Definition

For the purpose of this AD, a part eligible for installation is a Module 01 with a pre-mod TU 197 front support, that has not accumulated more than 1,680 engine operating hours since new; or a Module 01 with a post-mod TU 197 front support.

(i) Installation Prohibition

As of the effective date of this AD, you may not install a pre-mod TU 197 front support on any engine with a post-mod TU 197 front support installed.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, FAA, ECO Branch, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ECO Branch, send it to the attention of the person identified in paragraph (k)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For more information about this AD, contact Robert Green, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

(2) Refer to EASA AD 2016-0235, dated November 24, 2016, for more information. You may examine the EASA AD in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2017-0838.

(l) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on May 1, 2018.

Karen M. Grant,
Acting Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.
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